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EXAMINER

LEE, RICHARD J

ART UNIT	PAPER NUMBER
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SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/854,461

Applicant(s)

HANNUKSELA ET AL.

Examiner

Richard Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,9-12,14-22,24-29,31-33,35-45,47-54 and 56-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,9-12,14-22,24-29,31-33,35-45,47-54 and 56-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 54, and 56-63 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 54 recites a signal claim per se, showing no practical application and as such does not fall within the statutory classes set forth in 35 U.S.C. 101. Even though claim 54 has been amended to include “recorded on a carrier medium” among other features, the preamble still calls for a signal claim and there is no sufficient structure by itself or in combination with the signal claimed showing any practical application. A claimed signal is not a “process” under 35 U.S.C. 101 because it is not a series of steps. A claimed signal has no physical structure, does not itself perform any useful, concrete, and tangible result, and thus, does not fit within the definition of a machine. A claimed signal is not matter, and therefore is not a composition of matter. A product is a tangible physical article or object, some form of matter, which a signal is not. A signal does not fall within the definition of manufacture. Thus, the signal claim as recited in claim 54 does not fall within one of the four statutory classes of 35 U.S.C. 101. And since dependent claims 56-63 are directed to further limitations showing no practical application, claims 54, and 56-63 as a whole does not fall within the statutory classes set forth in 35 U.S.C. 101.

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference

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claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 10, 36-41, 53, and 69 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 33, 37-40, 43, 44, 50, and 51 of copending Application No. 10/138,178. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 10, and 36-41 are broader in scope than claims 33, 37-40, 43, and 44 of '178; claim 53 is broader in scope than claim 50 of '178; and claim 69 is broader in scope than claim 51 of '178.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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6. Claims 9-11, 14, 16, 22, 28, 39, 45, 51, 53, 54, 60, and 68-70 are rejected under 35 U.S.C. 102(e) as being anticipated by Fukunaga et al of record (6,683,988).

Fukunaga et al discloses a picture transmission system using minimal reference frame modification to recover from transmission errors as shown in Figures 4 and 5, and the same method for encoding a video signal representing a sequence of pictures, multimedia terminal device comprising a video encoder encoding a video signal, video encoder for encoding a video signal, an encoded video signal recorded on a carrier medium, and an apparatus for encoding a video signal (see Figure 4) as claimed in claims 10, 14, 16, 22, 39, 45, 53, 54, 60, and 69, comprising wherein the video encoder is arranged to obtain a prediction for a current picture of the sequence or a part of the current picture from a local default reference picture (i.e., in interframe coding, coding unit 102 codes a block with reference to the corresponding block and/or one more neighboring blocks in the preceding frame, the corresponding block and/or neighboring blocks representing the local default reference picture, see column 4, lines 23-36); generate an indicator (i.e., as provided by 107 of Figure 4, see column 5, lines 1-40) for the current picture or a part of the current picture, the indicator identifying an alternative reference picture for the prediction of the current picture when a remote default reference picture corresponding to the local default reference picture cannot be reconstructed in a subsequent remote decoding process (i.e., a corresponding block in the preceding frame is used as a replacement for the error frame in the decoding, the corresponding block representing the alternate reference picture, see column 4, line 61 to column 5, line 40); transmit the indicator (i.e., as provided by 107 of Figure 4) for use in the subsequent remote decoding process when decoding the current picture or the part of the current picture; generating the indicator to indicate

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the temporal reference of the alternative reference picture, providing the indicator with the current picture or the part of the current picture, wherein the video encoder is arranged to generate the indicator by using the temporal reference of the alternative reference picture (see column 4, lines 23-36, column 5, lines 1-40).

Fukunaga et al shows the same method for decoding an encoded video signal representing a sequence of pictures, video decoder, multimedia terminal device, and apparatus for decoding an encoded video signal representing a sequence of pictures as claimed in claims 9, 11, 28, 51, 68, and 70, comprising the same receiving a part of the encoded video signal representing a current picture of the sequence or a part of the current picture, determining that a default reference picture to be used in obtaining a prediction for the current picture or the part of the current picture cannot be reconstructed, examining an indicator provided for the current picture or the part of the current picture, the indicator identifying that an alternative reference picture is to be used for prediction of the current picture or the part of the current picture, using the alternative reference picture to provide a prediction for the current picture or the part of the current picture in response to determining that the default reference picture cannot be reconstructed (see column 5, line 42 to column 6, line 47); using the indicator to identify the temporal reference of the alternate reference picture (see column 4, lines 23-36, column 5, lines 1-40).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 1, 4, 19, 24, 32, 35, 42, 47, 56, 64, 65, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukunaga et al as applied to claims 9-11, 14, 16, 22, 28, 39, 45, 51, 53, 54, 60, and 68-70 in the above paragraph (6), and further in view of Hurst of record (6,188,728).

Fukunaga et al discloses substantially the same encoding and decoding as above, further including more than one indicator (i.e. as provided by 107 of Figure 4) provided for the current picture or the part of the current picture; wherein the video encoder is arranged to identify more than one alternative reference picture for the current picture or the part of the current picture by comparing the local default reference picture with a plurality of further reference pictures, and output an indicator for each further reference picture that meets the predetermined criterion to provide more than one indicator for the current picture or the part of the current picture (see column 4, line 61 to column 5, line 40).

Fukunaga et al does not particularly disclose the followings:

(a) identifying the alternative reference picture for the current picture or the part of the current picture by comparing the local default reference picture with a further reference picture to calculate a measure of similarity between the two, comparing the measure of similarity against a predetermined criterion, generating an indicator based on the comparison, calculating the measure of similarity as a sum of absolute differences using differences in pixel values between the local default reference picture and a further reference picture as claimed in claims 1, 19, 32, 42, and 64; and

(b) the indicators are included in the encoded video signal according to a ranking order, the indicator identifying the picture having the closest similarity to the default reference picture

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being placed first in the ranking order, examining a ranking order of more than one indicator provided for the current picture or the part of the current picture and selecting an indicator based on the ranking order, ranking the further reference pictures based on the comparison and providing the more than one indicator for the current picture or the part of the current picture in ranking order, the indicator associated with the further reference picture having the closest similarity to the local default reference picture being placed first in the ranking order as claimed in claims 24, 35, 47, 56, 65, and 67.

Regarding (a) and (b), Hurst discloses a block motion video coding and decoding as shown in Figures 1-3, and teaches the conventional use of a sum of absolute pixel difference similarity measure for a plurality of reference blocks in order to identify the reference block that most closely matches the current block of image data (see column 4, lines 26-46). Since Hurst has the capability of distinguishing between the various references blocks to determine the most closely matched block, it is hence considered obvious there is some sort of ranking factor within the block matching to rank the similarity measures obtained so as to identify the one or ones that match the current block the closest and so that the closest similarity is ranked first in the order of ranking. Therefore, it would have been obvious to one of ordinary skill in the art, having the Fukunaga et al and Hurst references in front of him/her and the general knowledge of block matching techniques through similarity measures, would have had no difficulty in providing a ranking of the plurality of reference pictures according to a sum of absolute pixel difference similarity measurements as taught by Hurst as part of the motion estimation within Fukunaga et al for the same well known identification by rank of the closest matched reference blocks first in the order of rank for the current block purposes as claimed.

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9. Claims 5, 15, 25, 26, 36, 37, 48, 49, 57, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukunaga et al as applied to claims 9-11, 14, 16, 22, 28, 39, 45, 51, 53, 54, 60, and 68-70 in the above paragraph (6), and further in view of Sun et al of record (5,455,629).

Fukunaga et al discloses substantially the same encoding and decoding as above, but does not particularly disclose wherein the video encoder is arranged to include the indicator in a picture header of the encoded video signal, the video encoder is arranged to include the indicator in a picture segment header or a macroblock header of the encoded video signal when the indicator is associated with a part of the current picture, the video decoder is arranged to obtain the indicator from a picture header of the encoded video signal, the video decoder is arranged to obtain the indicator from a picture segment header or a macroblock header of the encoded video signal as claimed in claims 5, 15, 25, 26, 36, 37, 48, 49, 57, and 58. The particular use of picture headers for including indicators are however old and well recognized in the art, as exemplified by Sun et al (see column 2, line 33 to column 3, line 4, column 8, line 65 to column 9, line 32). Therefore, it would have been obvious to one of ordinary skill in the art, having the Fukunaga et al and Sun et al references in front of him/her and the general knowledge of picture header data, would have had no difficulty in providing the picture header formatting including the indicator as taught by Sun et al for the video encoder of Fukunaga et al for the same well known compliance with the MPEG protocol and so that the receiving decoder may properly decode the video data purposes as claimed.

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10. Claims 6, 27, 38, 50, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukunaga et al as applied to claims 9-11, 14, 16, 22, 28, 39, 45, 51, 53, 54, 60, and 68-70 in the above paragraph (6), and further in view of ITU-Telecommunications Standardization Sector (Proposed Draft of modified Annex L including Copyright, normative Error Concealment, and Exact IDCT Signaling) of record.

Fukunaga et al discloses substantially the same encoding and decoding as above, but does not particularly disclose wherein the video encoder is arranged to encode the video signal according to the H.263 video compression standard and to include the indicator in the supplemental enhancement information in accordance with the H.263 video compression standard, wherein the video decoder is arranged to obtain the indicator from supplemental enhancement information of an encoded signal encoded according to the H.263 video compression standard as claimed in claims 6, 27, 38, 50, and 59. Such technical features are however well known and made obvious by ITU-Telecommunications Standardization Sector (see version 3 extensions, pages 1-5). Therefore, it would have been obvious to one of ordinary skill in the art, having the Fukunaga et al and ITU-Telecommunications Standardization Sector references in front of him/her and the general knowledge of video compression standards and recommendations, would have had no difficulty in providing the H.263 recommendation with Supplemental Enhancement Information as taught by the ITU-Telecommunications Standardization Sector reference for the video coder of Fukunaga et al so that the video signal encoded by Fukunaga et al may be encoded according to the H.263 recommendation and the indicator of Fukunaga et al may be included in the Supplemental Enhancement Information for the same well known compliance with the MPEG standard purposes as claimed.

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11. Claims 2, 17, 18, 29, 33, 40, 41, 61, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukunaga et al as applied to claims 9-11, 14, 16, 22, 28, 39, 45, 51, 53, 54, 60, and 68-70 in the above paragraph (6), and further in view of Yagasaki of record (5,515,388).

Fukunaga et al discloses substantially the same encoding and decoding as above, further including wherein the encoder is arranged to compare the first local default reference picture with a further reference picture corresponding to a picture of the sequence occurring temporally before the current picture with at least one further picture of the sequence occurring temporally before the current picture to calculate a measure of similarity between the two, and comparing the measure of similarity against a predetermined criterion, and generate the indicator based on the comparison (i.e., interframe coding within 102 of Figure 4, see column 3, lines 47-60, column 4, lines 23-36, column 4, line 61 to column 5, line 41).

Fukunaga et al does not particularly disclose, though, wherein the video coder is arranged to form a prediction of at least part of the current picture from a first local default reference picture and a second local default reference picture corresponding to a picture of the sequence occurring temporally before the current picture and the second local default reference picture corresponding to a picture of the sequence occurring temporally after the current picture, wherein the video encoder is arranged to indicate alternative reference pictures for B pictures and P pictures, wherein the video encoder is arranged to indicate alternative reference pictures only for P pictures as claimed in claim 2, 17, 18, 29, 33, 40, 41, 61, and 62. However, Yagasaki discloses an apparatus and method for preventing repetitive random errors in transform coefficients as shown in Figure 1, and teaches the conventional use of reference frames temporally before and after the current frame for predicting a current B frame (i.e., B frame prediction, see column 4,

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lines 45-53), and the particular P frame predictions (see column 4, lines 41-44). It is considered obvious to provide the B and P current frame predictions from Yagasaki as the specific current picture predictions within Fukunaga et al. Having provided the B and P current frame predictions of Yagasaki within Fukunaga et al, and since Fukunaga et al teaches the particular use of alternative reference pictures for current pictures (see column 4, line 61 to column 5, line 40 of Fukunaga et al), the video encoder of Fukunaga et al may therefore obviously be arranged to indicate alternative reference pictures for B pictures and P pictures, and arranged to indicate alternative reference pictures only for P pictures as claimed. Therefore, it would have been obvious to one of ordinary skill in the art, having the Fukunaga et al and Yagasaki references in front of him/her and the general knowledge of B and P frame predictions within video encoders, would have had no difficulty in providing the B and P current frame predictions of Yagasaki within Fukunaga et also that the video encoder of Fukunaga et al may be arranged to indicate alternative reference pictures for B pictures and P pictures, and arranged to indicate alternative reference pictures only for P pictures for the same well known B and P picture predictive processing purposes as claimed.

12. Claims 12, 21, 31, 44, 52, 63, and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukunaga et al as applied to claims 9-11, 14, 16, 22, 28, 39, 45, 51, 53, 54, 60, and 68-70 in the above paragraph (6), and further in view of Yamaguchi et al of record (US 2002/0009141 A1).

Fukunaga et al discloses substantially the same encoding and decoding as above, but does not particularly disclose a radio telecommunications device and scalably encoding the video signal and indicating alternative reference pictures for predictively encoded enhancement layer

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pictures of the scalable encoded video signal, using the indicator to identify alternative reference pictures for predictively encoded enhancement layer pictures of a scalable encoded video signal, the video decoder is arranged to use the indicator to identify alternative reference pictures for predictively encoded enhancement layer pictures of a scalably encoded video signal as claimed in claims 12, 21, 31, 44, 52, 63, and 66. However, Yamaguchi et al discloses a video encoding and decoding apparatus as shown in Figures 1-4, and teaches the conventional radio communication means for the transmission and reception of compressed video data (see Figure 15A, page 19, sections [0289], [0291], [0293], [0294]) as well as the scalable video codings and decodings, and enhancement layer video codings and decodings (see sections [0008] to [0012], [0039], [0040]). Therefore, it would have been obvious to one of ordinary skill in the art, having the Fukunaga et al and Yamaguchi et al references in front of him/her and the general knowledge of video codings and decodings, and transmission of video compressed data, would have had no difficulty in providing the radio communication means of Yamaguchi et al as the specific means for transmitting the video data of Fukunaga et al to a video decoder as well as the scalable and enhancement video codings and decodings as taught by Yamaguchi et al within the video coder of Fukunaga et al so that the video encoder of Fukunaga et al may be arranged to encode the video signal as a scalable video sequence and indicating /alternative reference pictures for predictively encoded enhancement layer pictures of the scalable video signal, using the indicator of Fukunaga et al to identify alternative reference pictures for predictively encoded enhancement layer pictures of a scalable encoded video signal, and so that the video decoder of Fukunaga may perform the complementary scalable and enhancement video decodings for the same well known compliance with the MPEG standard purposes as claimed.

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13. Claims 20 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukunaga et al and Hurst as applied to claims 1, 4, 9-11, 14, 16, 19, 22, 24, 28, 32, 35, 39, 42, 45, 47, 51, 53, 54, 56, 60, 64, 65, and 68-70 in the above paragraphs (6) and (8), and further in view of Normile of record (6,438,165).

The combination of Fukunaga et al and Hurst discloses substantially the same encoding and decoding as above, but does not particularly disclose wherein the video encoder is arranged to assess the similarity between the local default reference picture and a further reference picture using picture histograms as claimed in claims 20 and 43. Such technical features are however made obvious in view of Normile (see column 6, lines 5-67). Therefore, it would have been obvious to one of ordinary skill in the art, having the references in front of him/her and the general knowledge of the comparison of current and reference frames for similar matches within video encoders, would have had no difficulty in providing the picture histograms of Normile for the similarity matching within Fukunaga et al so that the video encoder of Fukunaga et al may be arranged to assess the similarity between the default reference picture and a further picture within Fukunaga et al for the same well known prediction of video frames purposes as claimed.

14. Regarding the applicants' note at page 23 of the amendment filed December 5, 2006 that the previous Office Action incorrectly cited the Fukunaga et al reference as US Pat. 6,438,165, the applicants are correct. US Pat 6,683,988, is in fact the correct reference for Fukunaga et al, as indicated by the applicants. The Examiner apologizes for any confusion that this may have caused for the applicants.

Regarding the applicants' arguments at pages 24-25 of the amendment filed December 5, 2006 concerning in general that "... Fukunaga fails to teach or suggest any alternative reference

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frame which is signaled from the encoder to the decoder. Fukunaga relates to a picture transmission system that transmits a series of pictures from an encoding apparatus to a decoding apparatus, each picture being encoded and subsequently decoded with reference to a preceding (reference) picture. When a transmission error occurs, the decoding apparatus detects a decoding error caused by the transmission error and sends an error signal to the encoding apparatus ... because the system of Fukunaga requires synchronicity between the encoder and decoder, it must operate in real time ... the end-of modification signal in Fukunaga cannot be equated ...”, the Examiner respectfully disagrees. It is still submitted that element 107 of Fukunaga et al is representative of the claimed indicator for the current picture or a part of the current picture, the indicator identifying an alternative reference picture for the prediction of the current picture when a remote default reference picture corresponding to the local default reference picture cannot be reconstructed in a subsequent remote decoding process (i.e., a corresponding block in the preceding frame is used as a replacement for the error frame in the decoding, the corresponding block representing the alternate reference picture, see column 4, line 61 to column 5, line 40 of Fukunaga et al).


Regarding the applicants' arguments at pages 25-27 of the amendment filed December 5, 2006 concerning in general the 35 U.S.C. 103 rejections and that Fukunaga fails to teach or suggest any alternative reference frame which is signaled from the encoded to the decoder, the Examiner wants to point out that such arguments have been addressed in the above.

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15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (571) 272-7333. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.


RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

2/9/07

